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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,648	09/28/2001	Keiji Yoshimura	862.C2397	1952

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FITZPATRICK CELLA HARPER & SCINTO
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NEW YORK, NY 10112

EXAMINER

CABRERA, ZOILA E

ART UNIT	PAPER NUMBER
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2125

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/964,648

Applicant(s)

YOSHIMURA, KEIJI

Examiner

Zoila E. Cabrera

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 37-45 are presented for consideration.

Claim Objections

2. Claim 40 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 40 is a method claim that does not further limits the apparatus claim 37. Applicant is suggested to rewrite claim 37 in independent form.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 37-40, and 42-45 are rejected under 35 U.S.C. 102(e) as being anticipated by **Nishi (US 6,462,807)**.

Regarding claim 37-40, and 42-44, **Nishi** discloses:

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37. An exposure apparatus for performing exposure of a substrate to light via a pattern of a reticle (Col. 1, lines 34-40; Col. 1, lines 28-31; Col. 5, lines 34-36), said apparatus comprising: a reticle stage configured to hold the reticle and to move (Col. 2, lines 59-62); a substrate stage configured to hold the substrate and to move (Fig. 3, element 48); an interface configured to input information of a condition of the exposure (Col. 5, lines 36-39), and a controller configured to select an exposure method to be performed from a first exposure method in which the exposure is performed while the target speed is constant (Col. 11, lines 22-24 and lines 58-61), and a second exposure method in which the exposure is performed while speed is changing (Col. 5, lines 33-40, i.e., an exposure method having the shorter time is selected; Col. 20, lines 29-31, i.e., exposure time depends on scan velocity of the reticle; Col. 5, lines 49-60; Col. 6, lines 25-30; Col. 12, lines 4-23; Col. 3, lines 55-64, i.e. the scan velocity of the reticle stage is required to be higher; Col. 2, lines 34-41; Col. 9, lines 59-67);

38. (New) An apparatus according to claim 37, wherein the condition of the exposure includes at least one of a shot size, a shot layout of the exposure to be performed, an alignment measurement value, a shot layout of the exposure having been performed, a shot position, and an accuracy required with respect to moving said reticle stage and said substrate stage (Col. 16, lines 22-26, i.e., a layout of shot regions on the wafer or a shot layout is inputted by an operator as conditions);

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39. (New) An apparatus according to claim 38, wherein the condition of the exposure includes a synchronization accuracy with respect to moving said reticle stage and said substrate stage (Col. 3, lines 56-60; Col. 17, lines 46-49).

40. (New) A method of manufacturing a device, said method comprising steps of: performing exposure of a substrate to light via a pattern of a reticle using an exposure apparatus as defined in claim 37; developing the exposed substrate, and processing the developed substrate to manufacture the device (Fig. 3; Col. 5, lines 36-40);

42. (New) An exposure apparatus for performing exposure of a substrate to light via a pattern of a reticle (Col. 1, lines 34-40), said apparatus comprising: an interface configured to input information of a condition of the exposure; and a controller configured to evaluate a correlation between a layout of a shot to be exposed and a layout of a shot having been exposed, according to each of a plurality of exposure methods, based on the input information, to select, among the plurality of exposure methods, an exposure method to be used, based on the evaluated correlations, and to control a performance of the exposure according to the selected exposure method and correction data, required for exposure of a substrate and obtained with respect to a previous exposure of a substrate performed according to the selected exposure method (Col. 5, lines 36-40, i.e., evaluation unit corresponds to calculation of exposure time on the basis of a layout of the shot regions, required quantity of integrated exposure, etc.

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The determining unit ,Fig. 13, element 79, selects an exposure method having the shorter exposure time; Col. 18, lines 35-62; Col. 16, lines 13-32, i.e., an exposure mode to be used is determined by the exposure mode determination means 79 *on the basis of* the kind of reticle, the photosensitivity of a photoresist, *a layout of shot regions*).

43. (New) An apparatus according to claim 42, wherein the plurality of exposure methods includes at least one of a static exposure with the substrate standing still while the exposure is performed, a constant speed exposure with the substrate moving at a constant speed while the exposure is performed and a changing speed exposure with the substrate moving at a changing speed while the exposure is performed (Col. 18, lines 52-54).

44. (New) A method of manufacturing a device, said method comprising steps of: performing exposure of a substrate to light via a pattern of a reticle using an exposure apparatus as defined in claim 42; developing the exposed substrate; and processing the developed substrate to manufacture the device. (Fig. 3; Col. 5, lines 36-40).

45. the correction data is used for correcting a measurement value of a surface position of the substrate (Col. 18, lines 35-62).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Nishi (US 6,462,807)**.

Regarding claims 41, Nishi discloses the limitations of claim 37 but fails to disclose that said controller is configured to perform the determination based on a user's indication if a manual specification mode is specified as a determination mode of said controller.

However, Nishi discloses that the operator supplies information or conditions such as a kind of the reticle to be exposed next, the photosensitivity of a photoresist on the wafer, a layout of shot regions on the wafer, etc. and thereafter an exposure mode to be used is determined (Col. 16, lines 22-30). Therefore it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to specify a manual mode as one of the conditions and thereafter the exposure mode would be determined based on such condition because it would provide a user friendly system that would allow the operator to choose the corresponding exposure mode such as manual mode.

Conclusion

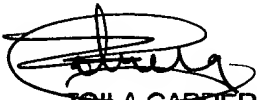
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zoila E. Cabrera whose telephone number is 571-272-

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3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

Zoila Cabrera
Primary Examiner
December 8, 2006


ZOILA CABRERA
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100
12/8/06